## **CLAIMS**

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1. A 1,2,4-thiadiazole compound represented by the formula (1):

$$R^1O$$

$$\begin{array}{c}
N \\
S \\
A^1R^2
\end{array}$$
(1)

wherein, R¹ represents C3-C7 alkynyl that may be substituted with halogen atom; R² represents C3-C8 cycloalkyl, C5-C8 cycloalkenyl or C7-C11 bicycloalkyl, wherein the C3-C8 cycloalkyl, the C5-C8 cycloalkenyl and the C7-C11 bicycloalkyl may be substituted with a substituent(s) selected from a group of C1-C4 alkyl, halogen atom and trifluoromethyl; A¹ represents a single bond, C1-C2 alkylene or C2-C3 alkylidene.

- 2. The 1,2,4-thiadiazole compound according to claim 1, wherein R<sup>2</sup> is C3-C8 cycloalkyl which may be substituted with C1-C4 alkyl in the formula (1).
- 3. The 1,2,4-thiadiazole compound according to claim 1 or 2, wherein A<sup>1</sup> is single bond in the formula (1).
- 4. The 1,2,4-thiadiazole compound according to claim 1 or 2, wherein A<sup>1</sup> is C1-C2 alkylene in the formula (1).
  - 5. The 1,2,4-thiadiazole compound according to claim 1 or 2, wherein R<sup>1</sup> is 2-butynyl or 2-pentynyl in the formula (1).

- 6. An arthropod controlling composition comprising the 1,2,4-thiadiazole compound according to claim 1 and an inert carrier.
- 7. A method for controlling arthropod pests comprising applying an effective dose of the 1,2,4-thiadiazole compound according to claim 1 to the arthropod pests or habitat of the arthropod pests.
- 8. Use of the 1,2,4-thiadiazole compound according to claim 1 for the arthropod pests controlling composition.